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HISTORICAL CHRONOLOGY

1 July 1961 - 31 December 1961

7 July 1961

The initial release of Fy 1962 funds to the SAMOS Project was in the amount of ~~██████████~~ Budget Authorization was contained in AFSC message SCCEP-3-7-3 dated 7 July 1961. It is anticipated that the full programmed amount of ~~██████████~~ will be made available by 1 September 1961.

8 July 1961

Systems testing for Project 101A first flyable payload with Agena 2120 vehicle was successfully accomplished.

9 July 1961

A space radiation package, including a sample of 101A film and processing web, was recovered with the DISCOVERER XXVI payload after 32 orbits. Analysis test of samples verified that the payload experienced a radiation dose of one half roentgen which was 20 to 50 times less than that of sensitized film used on present SAMOS Programs.

10 July 1961

Work was initiated on four (4) buildings of the Johnston Island Recovery Operations Center.

15 July 1961

Project 101B satellite vehicle 2202 completed the Agena subsystem testing phase and was transferred into a systems checkout complex. Delivery of the payload is the pacing item for this vehicle. The Agena is scheduled to be ready for a mid-October launch.

18 July 1961

SAFMS and SAFUS were briefed on the proposed SAMOS Development Plan for 1961. The plan was subsequently reduced and redesignated SAMOS Specifications Document.

20 July 1961

Program 202 Planning Estimate was submitted to the Commander, Atlantic Missile Range. Pad 15 was subsequently assigned for Program use.

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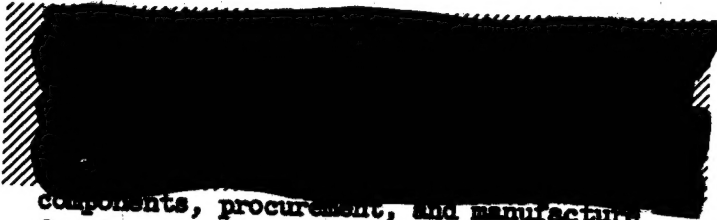
20 July 1961
The design criteria for the Vehicle Support Building at PALC 1, Point Arguello, was finalized with Aerospace and associate contractor's concurrence and forwarded to the SSD Facilities Office. A BOD of 1 January 1962, was established.

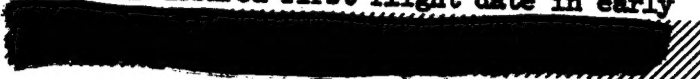
21 July 1961
The Orbit and Recovery Program Requirements document for Program 201 was issued.

29 July 1961
Five (5) JC-130B aircraft with Program 101B recovery gear were deployed to Hawaii. Tests are continuing at Edwards Air Force Base with test aircraft JC-130B No. 526. This aircraft accomplished pickup of a 2000 pound dummy RETU capsule in June.

7 August 1961
Construction modifications to Missile Assembly Building No. 3 at Vandenberg Air Force Base were initiated.

9 August 1961
The PERT Program evaluation and reporting techniques became operational for Program II.

12 August 1961

components, procurement, and manufacture for Agena vehicles 2312 through 2314 was completed and engineering releases for the remaining digital payload vehicles are progressing toward completion in November 1961.

13 August 1961
Agena vehicle 2301 and its associated airborne and AGE are now being programmed to a SSD desired first flight date in early


15 August 1961
The Agena for Project 101B satellite 2202 is in LMSC Systems Checkout. The recovery payload was received from ITEK on this date. Efforts are being directed toward launch readiness at PMR Pad 1 on 17 October 1961.

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18 August 1961

The first drop test vehicle for Program 201 was picked up for delivery to AFSWC, Kirtland Air Force Base.

18 August 1961

A high altitude balloon drop test of a Project 101B RETU capsule was completed over the White Sands Missile Range. The drop was accomplished at an altitude of 100,200 feet and was satisfactory in all respects. This balloon drop followed another successful B-52 drop on 1 August at Edwards AFB.

18 August 1961

Effective this date, responsibility for development of payload recovery systems was centralized in a Recovery Office(SAFSP-R) within the SAMOS Project Office. The Recovery Office will provide recovery system support to the SAMOS and DISCOVERER Programs. Manpower spaces were provided from Space Systems Division Offices, SSZAA-3 and SSZER.

20 August 1961

Thermal environmental and distortion tests on Program 201 lens No. 3 were started at ASD, Wright-Patterson Air Force Base.

30 August 1961

Negotiation of the follow-on contract with Lockheed Corporation for Program I, covering the period through May 1962, was completed during August.

31 August 1961

Project 101A satellite 2120 continued through launch preparations. Correction of difficulties with the Atlas booster electronics was effected and launch preparations were resumed at R-7.

31 August 1961

Significant progress was made toward first flight availability of equipment to be used in post recovery operations for Project 101B satellite 2202 and those subsequent. Two of the four processors have been delivered and installed at AFSFPL. Acceptance testing of these units

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is in progress. The Data Block Readers for AFSPL have advanced to the final assembly stage. The Manual Data Block Reader for the STC was cancelled by SSD. Also, deleted were the wet film handling and treatment equipment and the rewind and feed belt.

1 September 1961

The second Pegasus was launched at the White Sands Missile Range at 1422Z hours. The Pegasus vehicle is a solid-propellant rocket used to carry a Program I test re-entry vehicle to altitude to test the parachute system. On this launch the Pegasus vehicle and recovery system performed normally until deployment of the air pickup chute. This chute was supposed to deploy in a reefed condition; however, it deployed and opened immediately. The subsequent snatch load exceeded the main chute suspension line design strength causing main chute failure. It has been concluded that a dereefing squib was accidentally fired prior to launch or fired immediately on deployment. Some changes in parachute packing have been made as corrective measures prior to the third Pegasus launch currently scheduled for 11 October 1961.

5 September 1961

Program Authorization No. 62-DCAS-50 dated 5 September increased the program fund allocation for FY 1962 by [REDACTED] to a revised total of [REDACTED] Budget Authorization in the same amount was issued on BA No. 36 (DCAS). Of the [REDACTED] authorized SAMOS for FY 1962, [REDACTED]

7 September 1961

The Development Plan Annex for Program 202 was accepted by AMR (Martin Company Follow-on Program).

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7 September 1961

A Program II Management Meeting and Schedule Review was held at IMSC, Sunnyvale. Results of the meeting indicated that Lockheed is generally on schedule with the exception of a few component test programs which should not affect the overall Program 201 schedule.

9 September 1961

Project 101A Satellite 2120 was launched unsuccessfully at Pt Arguello Pad 1. The attempted launch took place at 12:38 PDT. Loss of electrical power caused the Atlas 106D booster engines to shutdown immediately after liftoff, resulting in the Atlas/Agena falling back on the launch pad and subsequently exploding at approximately T plus 1.5 seconds. Destruction of the 101A advanced readout payload resulted from the explosion and fire. Damage to the launch pad was moderate and primarily of an external nature. The loss of Atlas electrical power was attributed to a 0.21 seconds delay of the booster electrical umbilical disconnect after the vehicle two-inch vertical motion. Failure of this disconnect to disengage at the proper time resulted in recycling of the booster power changeover switch from internal to external power. Repair and refurbishing of Pad 1 are progressing on schedule and should be ready to support Project 101B first launch by 1 November 1961.

9 September 1961

Damage to PMR Pad 1, caused by Satellite 2120 explosion on 9 September has necessitated rescheduling of subsequent satellites. Satellite 2202 is now scheduled for 12 December 1961; 2203 for 18 January 1962; 2204 for 22 February 1962; and all subsequent flights have slipped nineteen work days on a six day work week.

10 September 1961

Test assembly of Program 201 Engineering Model Payload was completed.

10 September 1961

The Facilities Annex to the Development Plan was approved by the Secretary of the Air Force. Release of FY 1962 MCP funds is expected in the near future.

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11 September 1961

Two recovery test units (RETU) for Project 101B were dropped from a B-52 aircraft over the Hawaiian Islands on this date. Aerial recovery of the first drop was abandoned at approximately 5000 feet, and retrieved by surface ship without difficulty. The second drop was successfully recovered by a JC-130B aircraft at approximately 13,000 feet. These drop recoveries followed five successful air recoveries out of six attempts at Hickam Air Force Base on 8 September 1961.

15 September 1961

Facilities construction for the recovery site was approved in final form by PACAF and the Program Office. All work is on or ahead of schedule.

18 September 1961

The first drop of Program 201 recovery vehicle from a B-52 was completed successfully at Kirtland Air Force Base. Telemetry data up to the point of impact was received.

18 September 1961

Training plans, classes and schedules for indoctrination of personnel engaged in recovery activities for Program 201 were finalized at a 6594th Test Wing conference. Requirement for RC-121 aircraft in support of training and actual recovery operations was deleted. This action was taken after assessing the factors involved in supporting RC-121 from the recovery site versus the contribution it was predicted to make toward the recovery effort.

22 September 1961

A final decision was made to implement a secure communications system using KW-26 cryptographic equipment between the STC and all tracking stations supporting Program 201.

27 September 1961



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29 September 1961

Contract negotiations (IA) were completed on 29 September at the AFPR, Sunnyvale. The definitive contract will be written and forwarded to Lockheed for signature on 9 October 1961. Target date for definitization is 23 October 1961.

30 September 1961

Satellite Vehicle 2121 was deleted from Program I flight schedule and placed in bonded storage at Lockheed. This action was necessitated by higher priority use of critical pad time.

11 October 1961

The third Pegasus recovery system test vehicle was launched at White Sands Missile Range. The test vehicle and recovery system performed as designed. This test was a successful demonstration of the complete parachute system.

13 October 1961

Project 101A was officially terminated by AFSSD direction to the contractor (LMSC). Project 101B is continuing on an accelerated schedule.

17 October 1961

LMSC was directed to accelerate the Project 101B launch schedule. To accomplish this effort, LMSC established a hard core group of key personnel on a "task force basis" to devote 100 percent of their effort toward meeting program objectives. Personnel are working under a 24-hour seven-day week schedule. Project 101B, Vehicle 2202 originally scheduled for launch 17 October was rescheduled for 12 December due to Pad 1, PMR damage sustained from a booster explosion. Under the accelerated program vehicle 2202 is progressing to a 2 December launch. Vehicle 2203, originally

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scheduled for a 7 December launch, was rescheduled to a 18 January 1962 launch. Under an accelerated effort Vehicle 2203 is progressing to a 19 December 1961 launch.

17 October 1961

A recovery simulation exercise was conducted on 17 October near the Hawaiian Islands. Two Project 101B training capsules were dropped from a B-52 aircraft. One capsule was recovered on the first pass by a JC-130B aircraft. The second capsule was not recovered. A parachute malfunction was assumed.

31 October 1961

Recovery site facilities at Johnston Island were completed for Project 201 recovery requirements.

31 October 1961

Contract for Project IA was completed. This program was cutback to a three payload completion only. The LMSC Contract AF 04 (695)-41 was definitized in the amount of [REDACTED]

31 October 1961

Rehabilitation of launch Pad I, PMR, was completed. Damage to the pad was caused by Vehicle 2120 explosion on 9 September 1961.

31 October 1961

General Electric Company Contract AF 04(695)-6 was definitized in the amount of [REDACTED]

9 November 1961

A decision was made to delete the MOD II Secure Command System from Project 201.

10 November 1961

Aerospace ground equipment for the Missile Assembly Building, Project 201, was shipped to Vandenberg Air Force Base from Eastman Kodak Company. This completed equipment requirements for the MAB except for one viewer.

20 November 1961

Secretary of the Air Force Order No. 116.1 designated Major General Robert E. Greer as Director of Special Projects, OSAF, with additional duty as Vice Commander Air Force Space Systems Division. This order superseded SAF Order No. 116.1 which established the SAMOS Project Office 31 August 1960.

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22 November 1961

Satellite Vehicle 2202 was launched from Pad 1, Pt Arguello Launch Complex at 12:45 PST. Ascent of the booster/satellite was satisfactory until 247 seconds after liftoff. At this time the Atlas lost pitch attitude control permitting the Atlas to pitch upward into an attitude which prevented the Agena from assuming the proper attitude after separation from the first-stage booster. Results caused the Agena to stabilize approximately tail-first and its thrust acted to retard its speed rather than accelerate it into orbit. Additional difficulty was encountered in a premature first-stage shutdown.

30 November 1961

Instructions were received from SAFMS to discontinue reference to the title "Program I". Special Projects 101B was designated the proper title.

1 December 1961

Project 201 Recovery Test Program. A land drop test of a simulated payload was conducted at Stallion Station, White Sands Missile Range, New Mexico. All systems functioned properly. On 6 December a water drop of a simulated payload was conducted at the Pacific Missile Range. All systems functioned properly. However, a miscalculation of upper winds caused the parachute load to deviate from its planned course causing the vehicle to land on San Nicolas Island severely damaging the recovery vehicle.

4 December 1961

SAFMS message DIR-61-157 directed termination of all engineering and support efforts on Project 101B Vehicles 2205, 2206, 2207, 2208, and 2209. Vehicles 2203 and 2204 were to be continued on the planned launch schedule. All contracting and associated agencies were notified and the required termination action taken within 48 hours after receipt of SAFMS message. Termination action provided an estimated saving of [REDACTED] to the Air Force.

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6 December 1961

SAFSP Revised FY 1962 Financial Plan and FY 1963 Budget Estimate was submitted to the Secretary of the Air Force for P-630 funds.

8 December 1961

The Missile Assembly Building at Vandenberg Air Force Base was completed and accepted by the Air Force. The MAB was constructed primarily to support Project 201 and subsequent space programs.

11 December 1961

Special Projects Director approved reprogramming action of [REDACTED] from LMSC contract AF 04(647)-563 to LMSC/Philco Satellite Control Contracts to realize reduction of Project 101B development effort and to cover communication and control costs across-the-board for the program.

12 December 1961

Special Projects Director approved an established initial program of [REDACTED] to cover funding cost of PMR launch service by LMSC under contract AF 04(695)-52.

18 December 1961

Based on information set forth in message SAFSP-18-12-32 the recovery area for the first three payloads, Project 201, has been relocated from Johnston Island to approximately 600 miles south of Hickam Air Force Base. No change in Johnston as recovery site for remaining 201 recoveries was indicated.

22 December 1961

Satellite Vehicle 2203 was launched from Pad 2, PMR, at 1113 PST (Project 101B). A clean countdown was completed on the first attempt. Orbit was achieved with an overall mission success factor of approximately 84 percent. All subsystems functioned satisfactorily, except (a) propulsion where a malfunction in the Atlas sustainer cutoff resulted in an orbital period $4\frac{1}{2}$ minutes longer than planned; (b) malfunction

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experienced either in frame counter or unplanned camera shutoff with indications of smaller frame count than planned; and (c) UHF command system was unsatisfactory due to unplanned early selection of recovery channel. Preliminary estimates at the time indicated that the Agena re-entered in an approximate area south of Borneo on 31 December 1961, and the capsule should re-enter on or about 9 January 1962. No attempt for air recovery of the capsule will be made due to its dead recovery system caused by the premature activation of the retro mechanism.

31 December 1961

As a result of information gained from Vehicle 2203, several modifications are planned for 2204. These modifications will be design improvements in the Agena auxiliary power and control subsystems.

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